

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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1. (Original) A communication system comprising:
a plurality of high altitude communication devices;
a user terminal establishing a plurality of multiple dynamic links corresponding respectively to said user terminal, said user terminal generating multiple communication portions of a communication and transmitting the multiple communication portions through said multiple dynamic links; and

a gateway terminal receiving the communication portions from the high altitude communication device and reassembling the communication portions into the communication.

2. (Original) A system as recited in claim 1, wherein said high altitude communication device comprises a stratospheric platform.

3. (Original) A system as recited in claim 1, wherein said high altitude communication device is selected from the group consisting of a LEO satellite, a MEO satellite, or a GEO satellite.

4. (Original) A system as recited in claim 1, wherein said user terminal is mobile.

5. (Original) A system as recited in claim 1, wherein said multiple dynamic links are capable of having independently varying data rates.

6. (Original) A system as recited in claim 1, wherein said user terminal comprises a router for routing uplink communication portions through said links.

7. (Original) A system as recited in claim 1, wherein said router receives the communication portions and arranges the communication portions in a predetermined sequence.

8. (Original) A system as recited in claim 1, wherein said user terminal comprises a multiple beam antenna capable of simultaneously generating the multiple dynamic links.

9. (Original) A system as recited in claim 1, wherein said user terminal establishes a plurality of forward links and a plurality of return links, wherein said plurality of forward user links is greater than said plurality of return links.

10. (Original) A system as recited in claim 1, wherein said user terminal comprises a hub and router circuit coupled to a digital beam former for receiving multiple dynamic links.

11. (Original) A system as recited in claim 1, wherein said user terminal comprises a TCP/IP protocol for transmitting the multiple communication portions.

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12. (Currently Amended) A user terminal for a communication system having a plurality of high altitude communication devices comprises:

a plurality of receiving elements;

a receiving digital beam forming network for forming a plurality of receive beams from the plurality of elements;

a receiving hub and router circuit coupled to the receiving digital beam forming network for assembling communication portions from the beams formed in the receiving beam forming network;

a receiving direction control circuit coupled to the hub and router circuit and the receiving digital beam forming ~~circuit~~ network for estimating relative position vectors for the high altitude communication devices and the user terminal, said receiving digital beam forming network directing the receive beams to the high altitude communication devices.

13. (Currently Amended) A user terminal as recited in claim 12, further comprising:

a plurality of transmitting elements coupled to a transmitting digital beam forming network;

a transmitting hub and router circuit coupled to the transmitting digital beam forming network for making a communication into a plurality of datagrams and routing the plurality of datagrams through

multiple dynamic links formed by transmitting digital beam forming networks; and

a transmitting direction control circuit coupled to said hub and router circuit and to said transmitting digital beam forming network for forming relative position vectors of said user terminal and high altitude device, said transmitting digital beam forming network directing transmitting beams to the plurality of high altitude communication devices.

14. (Original) A user terminal as recited in claim 13, wherein said transmitting direction control circuit comprises estimation algorithms for generating a user state vector and a platform state vector.

15. (Original) A user terminal as recited in claim 14, wherein said user state vector and said platform state vector are used to generate relative position vectors.

16. (Original) A user terminal as recited in claim 13, wherein said transmitting hub and router circuit comprises a routing table which is updated with motion vectors from said transmitting direction control circuit.

17. (Original) A user terminal as recited in claim 13, wherein said transmitting digital beam forming circuit comprises a demodulator.

18. (Currently Amended) A method of operating a communications system comprising:

forming a plurality of multiple communication links directed to a plurality of high altitude communication devices;

dividing a communication into a plurality of datagrams;

routing the plurality of datagrams through the plurality of multiple communication links;

directing the datagrams from the plurality of high altitude communication ~~device~~ devices to a gateway station; and

reassembling the datagrams into the communication.

19. (Currently Amended) A method as recited in claim 18, further comprising the step of generating a second plurality of datagrams at a gateway station;

establishing a second plurality of dynamic communication links between a communication station and a user terminal through the plurality of high altitude communication devices;

reassembling the second plurality of datagrams into the communication at a user terminal.

20. (Currently Amended) A user terminal for a communication system having a plurality of high altitude communications ~~device~~ devices comprising:

a plurality of reconfigurable elements;

a beam forming ~~circuit~~ network coupled to the plurality of reconfigurable elements; and

a hub and router circuit coupled to the beam forming network for controlling the generation of and direction of a plurality of simultaneous multiple links for communication with the plurality of high altitude communications devices using the plurality of elements.

21. (Previously Presented) A method as recited in claim 18 prior to the step of reassembling, further comprising classifying the datagrams according to protocol.

22. (Previously Presented) A method as recited in claim 18 prior to the step of reassembling, starting a reassembly timer counting a time;

when the time exceeds a predetermined time before all fragments of a datagram arrive, disregarding the datagram; and,

generating a resend signal.